

MH4

ECONOMIC IMPACT OF AGITATED AND AGGRESSIVE BEHAVIORS OF ELDERLY INDIVIDUALS DWELLING IN THE COMMUNITY IN FRANCE: 1. EPIDEMIOLOGY

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OBJECTIVE: The aim of this study was to establish the epidemiological features of agitation and aggressiveness in patients aged 65 years or older and living at home and what the etiological factors might be, to begin a cost analysis in the absence of published data.

METHODS: Prevalence was estimated, first, in a random sample of 3777 elderly subjects (the PAQUID cohort), using DSM-III criteria and psychologists' reports, at different timepoints; second, in the patients of a nationally representative sample from 159 general practitioners, from diagnoses based on behaviors and clinical scrutiny. A national retrospective study including 410 patients was conducted to investigate the consequences of symptoms such as somatic troubles, social disability and dependence. Disability was also evaluated in the PAQUID cohort with the AGGIR scale used to identify patients eligible to a dependence-specific benefit. Risk factors (age, gender, medical variables, etc.) were examined.

RESULTS: In 1997, the prevalence of agitation and aggressiveness ranged between 0.19% and 0.34% of the French population. Of concerned subjects, 55% presented two to three somatic troubles, 97% a restriction of social life, and 85% a restriction of daily activities. Prevalence depended positively on age. Men exhibited more symptoms than women ($p < 0.0001$). Agitation and aggressiveness were mainly associated with dementia and psychiatric diseases, but demented subjects showed more physical agitation ($p < 0.02$), social disability, and dependence ($p < 0.0001$).

CONCLUSION: The economic impact of agitated and aggressive behaviors of elderly individuals should be great due to the high degree of associated disability, and it will likely increase in the future.

MH5

ECONOMIC IMPACT OF AGITATED AND AGGRESSIVE BEHAVIORS OF ELDERLY INDIVIDUALS DWELLING IN THE COMMUNITY IN FRANCE: 2. COST ANALYSIS

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OBJECTIVE: This study was designed to estimate the cost incurred by French Social Security due to agitated

and aggressive behaviors of patients aged 65 years or older, living at home.

METHODS: Economic appraisal was performed on a representative sample of 410 patients included by 212 general practitioners in a national specific retrospective survey. The bottom-up approach to calculating cost of those psychotic symptoms for total population was based on our preliminary estimation of their prevalence. The whole direct medical costs were taken into account so as to discover the medical costs of dependence associated with behavior troubles. The main determinants of costs were examined through the various profiles of patients we pointed out.

RESULTS: In 1997, the average cost to the French Social Security of an agitated and aggressive old patient dwelling in the community was estimated at $23,513 \pm 1,665$ FF. It varied with the age of patients, from $18,392 \pm 2,642$ FF in the 65–78 year age bracket to $21,920 \pm 3,447$ FF in the 88–99 year bracket, with a peak in the group of patients aged 79–87 ($29,724 \pm 2,675$ FF) ($p < 0.01$). The average cost of demented patients ($27,791 \pm 2,239$ FF) appeared to be significantly higher than that of nondemented ($18,410 \pm 2,445$ FF) ($p < 0.005$). Health-care services at home for dependent patients were the most costly category of service.

CONCLUSION: Our results highlight the economic interest of better controlling behavior disorders with special emphasis on demented patients in order to prevent them from becoming dependent.

MH6

COST-UTILITY ANALYSIS OF RISPERIDONE IN CHRONIC SCHIZOPHRENIA

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BACKGROUND: Schizophrenia imposes a heavy economic burden due to its early onset, high morbidity and mortality, chronicity, and limited response to traditional pharmacotherapy. Newer antipsychotics such as risperidone improve both negative and positive symptoms, and impact on economic and quality-of-life measures. However, the acquisition cost of risperidone is higher than that of traditional agents. An economic evaluation was performed to compare risperidone with oral haloperidol, depot haloperidol, and fluphenazine, to assess relative differences in costs and consequences.

METHODS: A cost-utility analysis was performed using a decision analytic model with the perspective of the Ontario government (Canada). Probabilities including success rates, dropouts due to adverse events, and EPS were determined from a systematic review of the literature. Costs were obtained from the provincial formulary and fee schedules, standard lists for community resources, and hospital case costing. Utilities were measured in 25 stable patients with schizophrenia, using the Standard Gamble technique, and combined with the clinical outcomes into a measure of quality-adjusted life-years (QALYs).

RESULTS: Risperidone dominated all comparators, having the highest clinical success rate (67%), greatest number of QALYs (0.89), and lowest expected costs (CDN \$69,885) over a 1-year period. Fluphenazine had the highest expected cost (CDN \$82,264) and lowest number of QALYs (0.85). Both oral and depot haloperidol were associated with higher total expected costs and lower number of QALYs than risperidone.

CONCLUSIONS: The use of risperidone in place of haloperidol in Canada would be associated with annual savings of CDN \$832 million in hospital expenditures, CDN \$113 million in incremental drug expenditures, and CDN \$180 million in annual incremental community care expenses. Prospective validation of our findings, as well as comparisons with the US and Europe, may be warranted.

ECONOMIC AND OUTCOMES STUDY RESULTS FOR DIABETES AND INFECTIOUS DISEASE

SELF-MONITORING OF BLOOD GLUCOSE IN DIABETES: IS IT WORTH IT?

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OBJECTIVES: To investigate patterns and costs of self-monitoring of blood glucose, and its effect on glycemic control, among insulin-using diabetic patients in Tayside, Scotland.

METHODS: The population-based DARTS diabetes database was used to identify all insulin-using patients diagnosed with type 1 or type 2 diabetes prior to 1993. The numbers of glucose-monitoring test strips dispensed in 1993–1995 were determined from the MEMO-dispensed prescribing database, and average costs per patient calculated. The effect of self-monitoring on glycemic control was investigated in a linear regression model (with HbA1c as the outcome variable). Independent variables were numbers of strips dispensed in the 6 months prior to the HbA1c reading, age, sex, and deprivation.

RESULTS: Among 807 patients with type 1 diabetes, 15% obtained no test strips, 20% obtained enough strips to test glucose daily, and 1% for four times daily. The corresponding figures for the 1,240 insulin-using patients with type 2 diabetes were 30% (no strips) and 12% (daily tests). Age and deprivation influenced strip uptake. Average costs/patient/year were £64.40 for type 1 diabetes and £44.80 for type 2 diabetes, compared with £409 for self-monitoring four times daily (recommended in the DCCT). For 258 patients with type 1 diabetes who had HbA1c values recorded, there was an association between strip uptake and glycemic control ($p < 0.001$), with an estimated decrease in HbA1c of 0.7% for every 180 test strips dispensed. There was no such association for 529 insulin-using patients with type 2 diabetes.

CONCLUSIONS: Self-monitoring of blood glucose im-

proves glycemic control in type 1 diabetes, but a minority of patients self-monitor regularly. Costs are moderate compared with other costs of diabetes care.

D2

PATIENT-HELD INSTRUMENTS FOR RECORDING AMBULATORY CARE RESOURCE USE: EXPERIENCE IN PATIENTS WITH DIABETIC FOOT ULCERS

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BACKGROUND: Patients with diabetic foot ulcers require long-term management by community-based health-care providers. To determine the amount of health resources used by patients with foot ulcers, we constructed a patient-held booklet for recording ambulatory care resource use alongside a multinational trial (contacts, dressings, topical medications).

OBJECTIVE: To evaluate the acceptability and completeness of the booklet.

METHOD: Thirty-seven patients in five study centers (in the UK and Spain) were asked to use the booklet for 4 weeks. Local center coordinators interviewed patients and clinicians and transferred data from the booklet onto the trial economic case report form (CRF).

RESULTS: Thirty-four (92%) patients returned the booklet to local coordinators; two had been admitted to hospital; one was lost to follow-up. Of patients, 91% found the booklet easy to use, and 94% remembered to carry the booklet with them most of the time. Thirty (91%) participating clinicians reported that the booklet was easy to use. Comments about the booklet included: (a) size of the text: too small; (b) volume: too bulky; (c) look-up list of dressings and topical medications: difficult to use. Of 277 contacts with clinicians reported in the booklets, 256 (92%) were transferred to the CRF. Participants recorded 1,004 dressing changes and 1,065 applications of topical medications in the booklets, 95% and 98% of which were transferred to the CRF. The number of contacts recorded in the booklet was found to be consistent with an independent report from participating clinicians in 18 out of 19 cases for which information was provided.

CONCLUSION: The patient-held booklet is an acceptable data collection instrument, which with minor modifications is suitable for use in ambulatory care settings.